

	L #	Hits	Search Text	DBs	Time Stamp
1	L1	599	((associative or ph adj dependent) near5 thickener)	USPAT; EPO; JPO; DERWENT ; IBM TDB	2001/11/15 12:38
2	L2	24	thickener near5 (alkaline or alkali) near5 swell\$3	USPAT; EPO; JPO; DERWENT ; IBM TDB	2001/11/15 12:39
3	L3	101	1 and ink	USPAT; EPO; JPO; DERWENT ; IBM TDB	2001/11/15 12:46
4	L4	9	2 and ink	USPAT; EPO; JPO; DERWENT ; IBM TDB	2001/11/15 12:41
5	L5	36	3 and (fluorinated or fluorocarbon or fluoro\$ or organosilicon\$2 or silicon\$2)	USPAT; EPO; JPO; DERWENT ; IBM TDB	2001/11/15 13:27
6	L7	2547	thickener same (fluorinated or fluorocarbon or fluoro\$ or organosilicon\$2 or silicon\$2)	USPAT; EPO; JPO; DERWENT ; IBM TDB	2001/11/15 12:46
7	L6	4	3 and monomer same (fluorinated or fluorocarbon or fluoro\$ or organosilicon\$2 or silicon\$2)	USPAT; EPO; JPO; DERWENT ; IBM TDB	2001/11/15 12:53
8	L8	18	1 and monomer same (fluorinated or fluorocarbon or fluoro\$ or organosilicon\$2 or silicon\$2)	USPAT; EPO; JPO; DERWENT ; IBM TDB	2001/11/15 12:55
9	L11	350	thickener same (fluoroalkyl or perfluoro\$ or \$fluoro\$ or \$silane or vinyltriethoxysilane)	USPAT; EPO; JPO; DERWENT ; IBM TDB	2001/11/15 13:16
10	L10	4	3 and monomer same (fluoroalkyl or perfluoro\$ or \$fluoro\$ or \$silane or vinyltriethoxysilane)	USPAT; EPO; JPO; DERWENT ; IBM TDB	2001/11/15 13:15

	L #	Hits	Search Text	DBs	Time Stamp
11	L12	33	1 and hydrophob\$2 same (fluorinated or fluorocarbon or fluoro\$ or organosilicon\$2 or silicon\$2)	USPAT; EPO; JPO; DERWENT ; IBM TDB	2001/11/15 13:16
12	L13	12	1 and hydrophob\$2 same (fluoroalkyl or perfluoro\$ or \$fluoro\$ or \$silane or vinyltriethoxysilane)	USPAT; EPO; JPO; DERWENT ; IBM TDB	2001/11/15 13:18
13	L14	33	11 and ink	USPAT; EPO; JPO; DERWENT ; IBM TDB	2001/11/15 13:19
14	L9	191	7 and ink	USPAT; EPO; JPO; DERWENT ; IBM TDB	2001/11/15 13:26
15	L15	30945	ink and (writing or marking or ball?point or ballpoint or ball adj point)	USPAT; EPO; JPO; DERWENT ; IBM TDB	2001/11/15 13:28
16	L16	3796	15 and (acrylic or methacrylic)	USPAT; EPO; JPO; DERWENT ; IBM TDB	2001/11/15 13:57
17	L17	379	16 and (monomer or hydrophobic) same (fluorinated or fluorocarbon or fluoro\$ or organosilicon\$2 or silicon\$2 or fluoroalkyl or perfluoro\$ or \$silane or vinyltriethoxysilane)	USPAT; EPO; JPO; DERWENT ; IBM TDB	2001/11/15 13:49
18	L18	254	16 and (monomer or hydrophobic) same (fluorine or halogen or halogenated)	USPAT; EPO; JPO; DERWENT ; IBM TDB	2001/11/15 13:50
19	L19	6	16 and 1	USPAT; EPO; JPO; DERWENT ; IBM TDB	2001/11/15 13:58
20	L20	338	16 and (thickener or thickening adj agent)	USPAT; EPO; JPO; DERWENT ; IBM TDB	2001/11/15 13:59

	L #	Hits	Search Text	DBs	Time Stamp
21	L21	9	16 and (thickener or thickening adj agent) same (acrylic or methacrylic) same (fluorine or silicone or siloxane or halogen or fluorinated)	USPAT; EPO; JPO; DERWENT ; IBM TDB	2001/11/15 14:02
22	L22	26	16 and (thickener or thickening adj agent) same (fluorine or silicone or siloxane or halogen or fluorinated)	USPAT; EPO; JPO; DERWENT ; IBM TDB	2001/11/15 14:06
23	L23	3	16 and (thickener or thickening adj agent) same hydrophobic same hydrophilic	USPAT; EPO; JPO; DERWENT ; IBM TDB	2001/11/15 14:06
24	L24	385	16 and hydrophobic same hydrophilic	USPAT; EPO; JPO; DERWENT ; IBM TDB	2001/11/15 14:06
25	L25	23	16 and hydrophobic same (fluorine or silicone or siloxane or halogen or fluorinated or fluoroalkyl or vintltriethoxysilane) and hydrophilic same (acrylic or methacrylic)	USPAT; EPO; JPO; DERWENT ; IBM TDB	2001/11/15 14:07

09/297,399

DERWENT-ACC-NO: 1978-02867A

DERWENT-WEEK: 197802

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TITLE: Waterproof writing ink - prepd. by adding polymer of perfluoroalkyl gp.-contg. monomer and hydrophilic gp.-contg. monomer to ordinary ink

PATENT-ASSIGNEE: DAIKIN IND LTD[DAIK]

PRIORITY-DATA: 1976JP-0056838 (May 17, 1976)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES
JP 52139523 A	November 21, 1977	N/A	000
JP 84028234 B	July 11, 1984	N/A	000

INT-CL (IPC): C09D011/16

ABSTRACTED-PUB-NO: JP52139523A

BASIC-ABSTRACT: Ink is obtd. by adding 0.01 - 5 wt. % copolymer prepd. from 10

- 90 wt. % 3-21C perfluoroalkyl gp.-contg. monomer unit and 90 - 10 wt. % hydrophilic gp.-contg. monomer unit to commercially available writing ink .

This ink has excellent water proofing power just after writing . The addn. of the copolymer does not adversely affect storage quality, yet improves resistance to oil and organic solvents.

The 3-21C perfluoroalkyl gp.-contg. monomers are e.g. of formula $RSO_2NR_1R_2OOC R_3=CH_2$ or $R(CH_2)_nOOC R_3=CH_2$ where R is 3-21C perfluoroalkyl, R1 is

H or 1-10C alkyl, R2 is 1-10C alkylene and R3 is H or methyl. The hydrophilic

gp.-contg. monomers are e.g. polymerisable carboxylic acids such as (meth)acrylic acid, itaconic acid, maleic acid, etc.; amides thereof; vinyl pyrrolidone; polymerisable sulphonic acids and their amides etc.

Copolymerisable monomers are e.g. styrene, ethylacrylate, vinyl chloride, 2,3-dichloro-1,3-butadiene etc.

DERWENT-CLASS: A97 G02

CPI-CODES: A04-E10; A12-W07D; G02-A04A;